



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
MILITARY SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND
200 STOVALL STREET
ALEXANDRIA, VA 22332-5000

SDG3-RF-S

AUG 06 2004

MEMORANDUM THRU Commander, 597th Transportation Group (Tml), ATTN: SDSO-S3-MA (Mr. Wayne), Southport, NC 28461-5000.

FOR Commander, 834th Transportation Battalion, ATTN: SDSO-C-MI, 410 Norman Avenue, Concord, CA 94520-1142

SUBJECT: Event Waiver Request for Ammunition and Explosives Safety Standards at Military Ocean Terminal-Concord (MOTCO), Import Operations (6 – 12 August 2004)

1. References:

- a. DOD 6055.9 STD, Department of Defense Explosive Safety Standards, July 1999
- b. AR 385-64, U.S. Army Explosive Safety Program, February 2000.
- c. DA PAM 385-64, Ammunition and Explosive Safety Standards, July 2000.
- d. Memorandum SDDC (former MTOP-DF-S), 29 September 2003, subject: Ammunition and Explosive Safety Exemption for the Military Ocean Terminal Concord, CA (MOTCO), 1 October 2003 through 30 September 2008.
- e. Memorandum SDSO-C-MI, 21 July 2004. subject: Request Event Waiver for Military Ocean Terminal Concord, CA (MOTCO) Import Operations August 2004.

2. The Commander, SDDC, hereby grants approval to waive safety standards for the handling and transshipment of ammunition and explosives through the Port of MOTCO to facilitate the download of the USNS Cape Farewell for the period of 6 – 12 August 2004. This event waiver provides relief from those provisions of references 1b and 1d that implement the DOD STD in reference 1a. These standards establish minimum quantity distance (QD) protection for inhabited building structures, public traffic routes and unbarricaded intraline quantity distance from munitions operations at MOTCO.

3. Pier 3 requires a waiver. The specific violation is the General Chemical Plant's distance from Pier 3 will not meet the Inhabited Building Distance (IBD) requirements of reference 1c, chapters 5 and 11. Pier 3 has an exemption for 3,474.512 lbs. Net Explosive Weight (NEW) at 7644 ft. granted by reference 1d. The Cape Farewell will dock with a NEW of 3,762.586 lbs. calculating an IBD arc at 7752 feet. This exceeds the present exemption by 252,076 lbs.

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4. General Chemical Plant manufactures Nitric acid (Corrosive), Sulfuric acid (Corrosive), Hydrochloric acid (Corrosive), Hydrofluoric acid (Corrosive/Poison) and Anhydrous Ammonia (Poison Gas/Corrosive).

5. Hazard risk assessment for Pier 3 (USNS Cape Farewell): Hazard Severity: Catastrophic; Hazard Probability: Unlikely; Decision Authority Matrix: Medium (reference 1b, figure 7-1 notes); Approval Authority: Commander Subordinate Command (MSC).

a. Facts:

(1) Hazard Classification/Division: 1.1.

(2) NEW: 3,728,588 lbs.

(3) Type Structure to be utilized: Pier 3, Ammunition pier.

b. Blast Zones/Hazard assessment: Formula used for Quantity Distance (QD) computations are $D=KW^{1/3}$, where D is the distance in feet, K is a factor depending upon the risk assumed or permitted, and W is the NEW in pounds, to $1/3$ power. Zone IBD = $D=50W^{1/3} = 7752$ feet. Unstrengthened buildings are likely to sustain damage up to about 5 to 10 percent of replacement cost. Personnel are provided a high degree of protection from death or serious injury, with likely injuries principally being caused by broken glass and building debris. Personnel in the open are not expected to be seriously injured directly by blast. Some personnel injuries may be caused by fragments and debris, depending largely upon the potential exposure site structure and the amount of ammunition and its fragmentation characteristics. Exposed site: General Chemical Plant.

6. Usage of any other facility other than Pier 3 will significantly degrade ship discharge timeline and incur additional cost.

7. All personnel directly involved with this operation will be briefed and comply with the following:

a. No other loading or unrelated tasks will be performed during munitions operations at Piers, Classification Yards 1 and 2, Lot 2, T-10, R buildings and building 177. (Unless authorized by Installation Commander)

b. No bunkering of explosive vessels at piers.

c. Strict adherence to authorized smoking areas will be maintained.

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- d. Munitions will be staged in Lot 2 and holding pads, and called forward when ready to load.
 - e. One Quality Assurance Specialist, Ammunition Surveillance will be in the area and available at all times with the U.S. Coast Guard detachment at pier side or on the ship.
 - f. Fire fighting and medical emergency services will be available at all times.
 - g. Munitions will be properly packaged IAW DOT and in shipping containers that are DOD certified and approved.
 - h. The only vehicles allowed at explosive operations will be those required to move the munitions or those required for tools and equipment inherent to the operation. No privately owned vehicles would be allowed in explosive areas.
8. Additionally, the following risk management (mitigation) and compensatory safety control measures will be carried out:
- a. Safety will be a primary consideration in planning and executing of all operations.
 - b. A minimum number of personnel will be exposed to the smallest quantity of explosives for the shortest period of time.
 - c. The number of workers will be kept to the minimum required to conduct operations.
 - d. Storm scope will be monitored during operations. Operations will cease and evacuations take place if and /or when lightning is detected within a 5-mile radius of the pier.
 - e. U.S. Coast Guard and Maritime Police personnel will provide a moving safety zone, a regular patrol and restrict access during ammunition operations.
 - f. The Fire Department will be notified of operations and placed on standby status.
 - g. All uploaded vehicles to include material handling equipment will have fire extinguishers.
 - h. The local police department will be notified of the scheduled date and time of operations.
 - i. Local emergency medical personnel will be notified of operations and placed on standby status.
 - j. Security personnel will patrol the staging and loading areas.

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- k. No smoking will be permitted outside of designated smoking areas.
- l. Personnel directly involved with operations will be briefed prior to commencing duties.
- m. Only trained personnel will conduct the explosive operations function.
- n. The wearing of all required personal protective equipment will be enforced.
- o. During explosive operations, neither members of the public nor workers not connected with the operation will be allowed on the terminal.
- p. No other operation will be conducted during explosives missions.
- q. Commanders will ensure the incorporation of safety into all aspects of operations and require that it takes precedence over all other considerations.
- r. Operations will not be initiated or continued when conditions are hazardous to safety or health.

9. Risk: The primary hazard is mass detonation of explosive materials. A secondary risk is blast/fragments of hazardous material. Therefore, IAW reference 1c, Figure 7-1, the Decision Authority Matrix, the hazard severity could be **catastrophic**, while the hazard probability of an event occurring is **unlikely**. **The overall risk is medium.**

10. IAW explosives safety standards, a review of the risks and assessment of SDG3-RF-S hazards will be conducted annually with a written report to the Department of Defense Explosives Safety Board.

11. My point of contact is Maj. Mark Wyrosdick, Chief, Safety Division, at (757) 878-7518.


ANN E. DUNWOODY
Major General, USA
Commanding

4 Encls

- 1. SDSO-C-MI MEMO, dated 21 Jul 04
- 2. DA Form 7319-R, for Waiver
- 3. MOTCO Map
- 4. MOTCO Exemption, dated 29 Sep 03